

# 8.2.1 INTERVENTION - KINETIC ENERGY WEB QUEST

Complete each of the tasks to review kinetic energy. When you are finished, show your teacher this intervention.

## Task 1

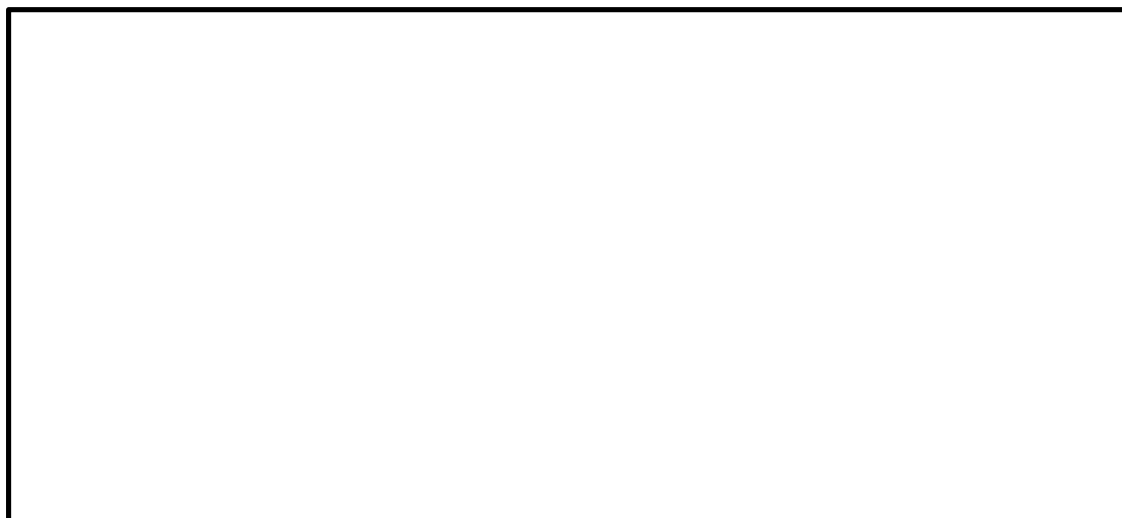
Go to <https://www.ck12.org/c/physical-science/kinetic-energy/lesson/Kinetic-Energy-MS-PS/>

1. What is kinetic energy?
2. What does kinetic energy depend on?
3. What is the equation for kinetic energy?
4. (Video 1) the amount of kinetic energy depends on its \_\_\_\_\_ and \_\_\_\_\_.
5. (Video 2) What happens to kinetic energy if there is no gravity from Earth?

## Task 2

Go to [https://phet.colorado.edu/sims/html/energy-skate-park-basics/latest/energy-skate-park-basics\\_en.html](https://phet.colorado.edu/sims/html/energy-skate-park-basics/latest/energy-skate-park-basics_en.html).

6. On the top right, click the pie graph so that it is checked and move the mass to small. Watch the simulation. At what point does the skater have the HIGHEST kinetic energy?
7. Change the mass of the skater to large. At what point does the larger skater have the HIGHEST kinetic energy?
8. Change the settings, graphs, size of skater, and the type of ramp and observe different simulations. What pattern do you notice with the highest and lowest amounts of kinetic energy?
9. In the space below, draw a picture of the skater on one of the tracks and label where kinetic energy is the highest and where it is the lowest.



**Task 3**

Go to <http://d3tt741pwxqwm0.cloudfront.net/WGBH/conv16/conv16-int-rollercoaster/index.html>.

10. On the top left, click on the green step button, then in the space below, draw the roller coaster and label the location of the numbers 1 – 6, just like the simulation. Then push the step button again until the coaster finishes all of the steps. On the picture, label where kinetic energy is the highest and lowest.



11. What pattern do you notice about the location of the highest and lowest points for kinetic energy?

**Task 4**

12. Do a basic google search to find 4 different examples of kinetic energy.

Example	Description	Diagram